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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,735	12/05/2003	Dale A. Steffen	038P0301	1714

7590 02/09/2006

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EXAMINER	
TRAIL, ALLYSON NEEL	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H:A

Office Action Summary	Application No.	Applicant(s)	
	10/728,735	STEFFEN, DALE A.	
	Examiner	Art Unit	
	Allyson N. Trail	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) *16-45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8 and 10-12* is/are rejected.

7)☒ Claim(s) *6, 7, 9, and 13-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to the restriction requirement set forth in the Office Action mailed on October 4, 2005 the applicant elected the invention of group 1, which includes claims 1-15. Claims 16-35 are withdrawn from further consideration as being drawn to non-elected inventions.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 8, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta et al (2005/0156806) in view of Kobayash (6,617,832).

With respect to claim 1, Ohta et al teaches an interrogator 11, which includes a transmission portion for generating an interrogation to the radio frequency tags 13, a reception portion for receiving answers from the radio frequency tags 13, and a signal separator. The signal separator comprises a circulator for separating interrogation signals transmitted from the transmission portion to the interrogator antenna 12 from response signals received at the interrogator antenna 12.

Ohta et al's teachings however fail to specifically teach the detailed components of the signal stripping circuit, including a resistor, an amplifier, a feedback circuit, a voltage shift, and diodes.

In regards to claims 1, 2, 5, and 8, the voltage divider taught by Kobayash regulates the flow of an input voltage.

Kobayash illustrates in figure 3, voltage regulator 120. The voltage regulator includes a voltage level shift circuit, a feedback circuit, which is in conjunction with an amplifier 13, and resistors R_F and R_s. Resistors R_F and R_s appear to have about equal resistances.

In regards to claim 3, Kobayash illustrates in figure 7, a pathway including a pair of diodes aligned in series.

In regards to claim 4, Kobayash illustrates in figure 7, a pathway including a feedback resistor having a resistance R_F.

In regards to claims 10-12, Kobayash illustrates in figure 2, an amplifier 13 having a first input coupled to the inlet resistor and the second input tied to a reference voltage. Also shown in figure 2, the first input of the amplifier is an inverting negative input and the second input is a positive input.

In view of Kobayash's teachings it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Kobayash's voltage stripping circuit in combination with the RFID system taught by Ohta et al. Ohta et al teaches isolating one voltage signal (interrogation signal) from another voltage signal (response signal). Although Ohta et al does not specifically teach how one voltage signal is stripped from the other, it is clear that using Kobayash's method would result in a successful voltage division. One would be motivated to use Kobayash's voltage dividing circuit along with the RFID system including voltage signal isolation taught by

Ohta et al in order to efficiently and effectively isolate the two separate voltage signals, which are received by the RFID reader's antenna.

Allowable Subject Matter

4. Claims 6, 7, 9, and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

The following is an examiner's for allowance: Prior art teaches an RFID where the system includes a low voltage signal stripping circuit included in the receiving circuitry for isolating the transponder signal form the excitation signal. The above identified prior art of record, taken alone, or in combination with any other prior art however, fails to teach or fairly suggest the specific features of claims 6, 7, 9, and 13-15 of the present claimed invention. Specifically prior art fails to teach the reader wherein the feedback circuit has a first pathway including a first pair of clamping diodes aligned in series in a first direction, a second pathway including a second pair of clamping diodes aligned in series in a second direction opposite the first direction, and a third pathway including a feedback resistor. Further, prior art fails to teach the reader wherein the inlet resistor is a high voltage component and the amplifier and the feedback circuit are low voltage components. Lastly, prior art further fails to teach the reader including a summing node positioned upstream of the amplifier and downstream of the inlet resistor, wherein the feedback circuit and the DC shift voltage or the DC shift current source to sum outputs from the inlet resistor, the feedback circuit, and the DC

shift voltage or current source. Moreover, one of ordinary skill in the art would not have been motivated to come to the claimed invention.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kranz (2004/0246100), Johnson et al (2002/0109636), Heinrich et al (2002/0044058), Philipsson (2001/0007815), Zhou et al (5,878,133), Park (6,138,005), and Baude et al (2004/0119504)

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Allyson N. Trail* whose telephone number is (571) 272-2406. The examiner can normally be reached between the hours of 7:30AM to 4:00PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (571) 272-2398. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**allyson.trail@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published

in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Allyson N. Trail
Patent Examiner
Art Unit 2876
January 26, 2006

KARL D. FRECH
PRIMARY EXAMINER